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Mississippi/Louisiana Salinity Study

- Description** The estuarine waters of Lake Pontchartrain and tributaries that drain into western Mississippi Sound and the surrounding Biloxi Marshes support a highly productive marine habitat. Productivity of oyster beds is particularly sensitive to the salinity levels within western Mississippi Sound and the Biloxi marshes.
- Issue** The state of Mississippi desires that supplemental freshwater from the Mississippi River be supplied to the overall estuarine system so that the salinity levels will be reduced in critical areas.
- Products** The study goals are to characterize the salinity regime within the study area for a low, normal and high runoff years for the local tributaries. In addition, the study will evaluate the effectiveness of freshwater diversion and control measures at optimizing the salinity levels within the critical marshes. The results of the characterization of the salinity regime will be provided to the Coastal Louisiana Ecosystem Assessment and Restoration (CLEAR) model for evaluation of ecological response.
- Supporting Technology** The study will use existing three-dimensional numerical modeling tools designed by both US Army ERDC and the University of New Orleans (UNO) for regional salinity intrusion evaluation.
- Benefits** The results of this study will provide for a consistent and repeatable method for defining the salinity regime response to a wide range of alternatives for management of the limited freshwater resources within the project region.
- Sponsors** US Army Corps of Engineers, New Orleans (CEMVN)
- Point of Contact** Joseph V. Letter, Jr., Coastal and Hydraulics laboratory, ERDC, 3909 Halls Ferry Road, Vicksburg, MS 39180, letterj@wes.army.mil . Additional information can be found at <http://www.mvn.usace.army.mil/prj/lca/>
- Partners** This study is a cooperative effort between the COE (ERDC, MVN) and the CLEAR group (LCA) including the University of New Orleans